



# FENSTER & COMPANY

Patent Attorneys, Ltd.

P.O. Box 10256, Petach Tikva 49002, Israel

e-mail: fensterco@fenster.co.il

Tel: +972-3-921 5380 Fax: +972-3-921 5383

Deliveries: 3rd Floor, Entrance #3, Basel Street 16, Kiryat Arye, Petach Tikva  
49510, Israel

## Facsimile Message

TO: Mr. Toshio Shirane  
Suzuye & Suzuye

FROM: Dr. Paul Fenster

FAX:

TEL:

PAGES: 1 + 2

DATE: September 02, 2001

RE: Indigo Patent Application UDD

RECEIVED  
DEC 21 2001  
TC 1700

## EXTREMELY URGENT

Dear Mr. Shirane,

A Japanese patent application was cited as art in the above-referenced U.S. Indigo patent application. Please find attached to this fax, the abstract of the application in English and Japanese.

I would appreciate your assistance in answering the following questions:

1. The application appears to describe the possibility of using a condensation type silicone rubber or varnish which is made tacky by adding silicone oil and a tackifier. Is this a correct understanding of the application?
2. Does the application mention anywhere the thickness of the tacky layer?

I would appreciate your timely response.

Yours sincerely,

Paul Fenster, Ph.D.  
Patent Attorney



If you have not received any part of this message, please contact us immediately.

**SUZUYE & SUZUYE**

PATENT &amp; LAW FIRM SINCE 1910



YOUR REF:

OUR REF : LD-01088

KASUMIGASEKI UBE BLDG. 3-7-2,  
KASUMIGASEKI, CHIYODA-KU,  
TOKYO 100-0013 JAPAN  
TEL +81-3-3502-3181  
FAX

+81-3-3591-5248-JAPANESE PATENTS  
+81-3-3501-5663-FOREIGN PATENTS  
+81-3-3507-0861-TRADEMARKS & DESIGNS  
+81-3-3591-5248-ACCOUNTING & FEES  
+81-3-3502-1504-SECRETARIES

Mr. Paul Fenster, Ph.D.  
Fenster & Company  
P.O. Box 10256  
Petach Tikva 49002  
ISRAEL

September 6, 2001

Indigo Patent Application UDD

Dear Sir:

In connection with your facsimile letter of September 2, 2001, we will reply to your questions.

Re: Question 1

The application describes, as a tackifier added to the two-component addition type liquid silicone raw rubber, which is a base material of a tacky layer, (a) one- or two-component condensation type silicone varnish or (d) silicone oil having a viscosity of 10,000 cs or more.

Re: Question 2

The application describes: "The thickness of the tacky layer is suitably about 5 $\mu$  or more." The thickness of the tacky layer in Example 1 is 100 $\mu$ .

A debit note for our services will be sent along with our monthly invoice to Ms. Caroline Nobb at Indigo N.V. in the Netherlands, with a copy to Mr. Sharon Gahali at Indigo Israel.

If you have any further questions, please feel free to contact us.

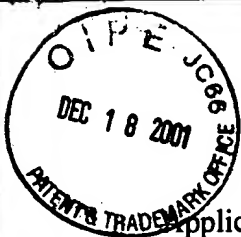
Very truly yours,

SUZUYE &amp; SUZUYE

  
Toshiro SHIRANE

TOS/7KO/no

RECEIVED  
DEC 21 2001  
TC 1700



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : M. ARONHIME, et al.

Group Art Unit 1774

Serial No : 09/011,634

Examiner Grendzynski

Filed : April 3, 1998

For : INTERMEDIATE TRANSFER BLANKET AND METHODS  
OF PRODUCING THE SAME

DECLARATION OF MARC ARONHIME UNDER 37 CFR 1.132

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Sir:

I, Marc ARONHIME, declare as follows:

1. I am very familiar with polymer materials. I hold an M. A. and a Ph.D. in Chemical Engineering from Princeton University. I have been working in polymer chemistry since 1985 and in research and development connected with liquid toner imaging since 1994. I am employed by Indigo Ltd., an Israel research and development company specializing in liquid toner imaging systems as Manager of Polymers and Elastomers Imaging Products R&D.

2. I have reviewed the disclosure of US Patent Application Serial Number 09/011,634. I am familiar with the invention disclosed therein, being the first named inventor.

3. I have produced intermediate transfer blankets using the methods described in the above referenced disclosure and have used such blankets in liquid toner imaging.

4. In the representative examples described at page 21, line 21 to page 24, line 22, the outer layer of the blanket is produced from a mixture of silicone materials with or without additional additives. The composition of the outer layer determines the tackiness of the blanket. As disclosed, tackifiers are not used in the production of this layer.

5. Under normal conditions of operation of the blankets, i.e., at room temperature and at the temperatures normally encountered in liquid toner imaging and when used to transfer liquid toner images from a photoreceptor to a final substrate, the surface of the blanket is not tacky.

RECEIVED

DEC 21 2001

TC 1700

6. The liquid toner imaging systems described in the above referenced disclosure are designed to operate with a non-tacky blanket and tackiness of the blanket would result in poor transfer from the blanket to a further substrate.

The undersigned declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under section 1001 of title 18 of the United States Code and such willful false statements may jeopardize the validity of any patent issuing thereon.

Date: Nov. 7 2001

  
Marc ARONHIME

P15162.A15

(8) Arguments

Reasons 1

APPEAL BRIEF

Claim 4-6 and 8 are rejected as being *anticipated* by Krajian and claims 7, 11 and 12 are rejected as being unpatentable over Krajian.

Krajian describes a lighted sign in which portions of a message can be successively displayed, i.e., scanned by illuminating the portions through a rectangular aperture in a rotatable cylinder.

Claim 4, the parent claim of all of claims 5-7, 11 and 12 includes the limitation that the faceplate be "adapted for *holding* a film transparency having an area thereon." This language clearly conveys to a person of skill in the art that at the very least there be some structure associated with the faceplate for mounting of a transparency on the faceplate. In fact, in Krajian, the faceplate is vertical and there is no way in which a transparency can be *held* on it without some adaptation. Thus, the Examiner's assertion that, as broadly defined by Appellant's claimed language, the front face of the faceplate of Krajian is considered to be adapted for holding a transparency on the faceplate is without appropriate basis, and cannot support a rejection based upon Krajian.

Reasons 2

Claim 6, is rejected as being *anticipated* by Krajian. Claim 6 contains the limitation that "the housing defines a second aperture, wherein said housing is rotated such that the second aperture is disposed between the light source and the faceplate, an area of the faceplate equal to an area of a transparency when mounted thereon is illuminated."

RECEIVED  
DEC 21 2001  
TC 1700

P15162.A18

*APPEAL RESPONSE*

to *Arguments* the Examiner followed the order of the Reasons given, without indicating which reason was being responded to. However, since the Examiner has responded with one paragraph for each of Appellant's Reasons (except for using two paragraphs for Reason 7), the Board should have no problem matching up the Reasons in the Brief and those of the Examiner. Appellant has adhered to the referencing system used in the Appeal Brief for the present response.

Reasons 1 - The Examiner found that claims 4-6 and 8 are *anticipated* by Krajian. Appellant argued in Reasons 1 of the Appeal Brief that Krajian does not teach a viewing surface "adapted for holding a transparency." In response, the Examiner states that, "The faceplate (13) of Krajian is "considered to be adapted to hold a transparency since a transparency could be leaned up against the faceplate, adhesively attached to the faceplate, clipped to the faceplate, etc."

Appellant submits that the Examiner has ignored the main question, namely whether the faceplate, *per se*, is adapted to *hold* the transparency. Of the methods described by the Examiner as being possible, leaning the transparency against the faceplate (aside from its being an unacceptable way of viewing a transparency) would not result in the holding of the transparency. The other possibilities noted by the Examiner require that additional structure (tape, adhesive, clips) be provided to hold the transparency. Since none of these are present in Krajian, the rejection based on anticipation does not apply. Since, as indicated below, "adapted to" defines structure, this absence in the prior art removes the claims from anticipation.

Appellant submits that, in order to meet the requirement that the faceplate be adapted to hold

P15162.A18

a transparency, some adaptation must be provided, i.e., some structure must be present to perform the function. This structure could be clips or other holders, as in the present disclosure. However, Krajian has no such clips. The fact that the term "adapted" is a structural limitation is well established (See for example, R.A.A.C. Industries Inc. v. StunTech, 49 USPQ2d 1793 (CAFC), Al-Site Corp. v. VSI International, 50 USPQ2d 1161 (CAFC). The law, as understood by Appellant, is most succinctly presented in In re Venezia, 189 USPQ 149 (CCPA 1976), viz:

Claims that define claimed inventions metes and bounds with reasonable degree of precision and particularity are 35 U.S.C. 112, second paragraph definite; *claim language calling for sleeves "adapted to be fitted" over the insulating jacket imparts structural limitation to sleeve* rather than merely directing activities to take place in the future; structures of components of completed assembly may be defined in terms of interrelationship of components, *or attributes they must possess*, in completed assembly. (Headnote 1)

Still further, attention is directed to MPEP §2173.05(g), where the position of the Patent and Trademark Office (PTO) is stated with respect to the limitations "adapted for" and "adapted to" the official PTO position is now:

In a claim that was directed to a kit of component parts capable of being assembled, the Court held that limitations such as "members adapted to be positioned" and "portions . . . being resiliently dilatable whereby said housing may be slidably positioned" serve to precisely define present structural attributes of interrelated component parts of the claimed assembly. In re Venezia, 530 F.2d 956, 189 USPQ 149 (CCPA 1976).

Furthermore, the same section of the MPEP states:

A functional limitation is an attempt to define something by what it does, rather than by what it is (e.g., as evidenced by its specific structure or specific ingredients). There is nothing inherently wrong with defining some part of an invention in functional terms. Functional language does not, in and of itself, render a claim improper. In re Swinehart, 439 F.2d 210, 169 USPQ 226 (CCPA 1971).

P15162.A18

*A functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used.* A functional limitation is often used in association with an element, ingredient, or step of a process to define a particular *capability or purpose* that is served by the recited element, ingredient or step.

Appellant notes that this section of the MPEP covers functional limitations. However, the Venezia case is much broader in scope. Further, the italicized portions of the MPEP quotation apply equally well to structural limitations.

The Examiner chose to ignore the "adapted to" limitation, or rather to twist it in a way that gives it no reasonable meaning.

Appellant further submits that the claim is not obvious in view of Krajian, since there would be no reason any person would mount a transparency on the surface of Krajian.

Reasons 2 - Claim 6 requires that there be a second aperture, which when disposed between the light source and the transparency results in the illumination of the entire face of the transparency. This is to be taken together with the limitation of claim 1 that the first aperture is operative to scan the transparency. In the Appeal Brief, Appellant argued that, the apertures in Krajian are all of the same size. The Examiner, in his response, alleges that claim 6 does not require two sizes of apertures. In this he is clearly wrong, since an aperture that scans the transparency and one that illuminates the entire transparency must, at least according to the cited art, of necessity be of different sizes.

Reasons 3 - Claim 7 (dependent on claim 6) is rejected as being unpatentable over Krajian. The Examiner contends that it would have been obvious to add a means for reducing the intensity of



The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 34



UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

Ex parte DAN INBAR

Appeal No. 2001-0252  
Application 08/760,652

ON BRIEF

RECEIVED

MAY 18 2001

GREENBLUM &amp; BERNSTEIN, P.L.C.

MAILED

MAY 15 2001

PAT. & T.M. OFFICE  
BOARD OF PATENT APPEALS  
AND INTERFERENCES

Before FRANKFORT, McQUADE, and NASE, Administrative Patent Judges.

FRANKFORT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 2 through 12, 21 through 23 and 30 through 32. Subsequent to the final rejection appellant filed four amendments, of which only those filed on March 22, 1999 (Paper No. 20) and May 25, 1999 (Paper No. 24) were entered by the examiner. As a result of the entry of those amendments, the examiner has indicated that claims 2, 3, 9 and 10 stand allowed.

1

RECEIVED  
DEC 21 2001  
TC 1700

Appeal No. 2001-0252  
Application 08/760,652

Accordingly, the appeal as to those claims is dismissed, leaving for our consideration on appeal claims 4 through 8, 11, 12, 21 through 23 and 30 through 32. Claims 1, 13 through 20, 24 through 29 and 33 through 40 have been canceled.

Appellant's invention relates to a transparency viewing device or viewbox for holding and illuminating X-rays and like transparencies. Independent claims 4, 21, 23, 30 and 31 are representative of the subject matter on appeal and a copy of those claims may be found in the Appendix to appellant's brief.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Krajian	2,722,762	Nov. 8, 1955
Geluk	4,637,150	Jan. 20, 1987

In making an obviousness-type double patenting rejection of certain of the appealed claims, the examiner has additionally relied upon U.S. Patent No. 5,430,964, issued July 11, 1995 to Dan Inbar et al.

Appeal No. 2001-0252  
Application 08/760,652

Claims 21 through 23 and 30 through 32 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 5,430,964.

Claims 4 through 6 and 8 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Krajian.

Claim 30 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Geluk.

Claims 7, 11 and 12 stand rejected under 35 U.S.C. § 103 as being unpatentable over Krajian.

Rather than reiterate the details of these rejections and the conflicting viewpoints advanced by the examiner and appellant regarding the rejections, we refer to the examiner's answer (Paper No. 27, mailed August 13, 1999) and to appellant's brief (Paper No. 25, filed May 25, 1999) and reply brief (Paper No. 28, filed October 13, 1999) for a full exposition thereof.

2001 4:37PM

10-1180

NO. 9500 P. 3

Appeal No. 2001-0252  
Application 08/760,652

### OPINION

After careful consideration of appellant's specification and claims, the teachings of the applied references and each of the arguments and comments advanced by appellant and the examiner, we have reached the determinations which follow.

Turning first to the examiner's rejection of claims 21 through 23 and 30 through 32 under the judicially created doctrine of obviousness-type double patenting, we observe that the examiner's position as set forth on page 3 of the answer is that

[a]lthough the conflicting claims are not identical, they are not patentably distinct from each other because claim 1 of Patent No. 5,430,964 discloses all of the structure defined by the applicant in claims 21-23 and 30-32 except for detecting only two transparencies which is considered to be within one skilled in the art to modify claim 1 of Patent No. 5,430,964.

It is of great interest to us that the single difference pointed to by the examiner (i.e., detecting only two transparencies) is found only in independent claim 21 on appeal and does not appear in independent claims 23, 30 and 31 which are also subject to this ground of rejection. Thus, we are at a loss to understand exactly how the examiner has reached the conclusion

Appeal No. 2001-0252  
Application 08/760,652

that appellant's claims 23 and 30 through 32 are unpatentable under the judicially created doctrine of obviousness-type double patenting, since the examiner has identified no differences between those claims and claim 1 of U.S. Patent No. 5,430,964 and has provided no statement as to what is considered to have been obvious. Thus, the examiner has not established a prima facie case of obviousness-type double patenting. In reviewing claims 23 and 30 through 32, we note that there are clearly differences between the subject matter covered by those claims and the subject matter set forth in claim 1 of U.S. Patent No. 5,430,964 and that we agree with appellant's position set forth in the brief and reply brief as to those differences. Accordingly, we are constrained to reverse the examiner's double patenting rejection of claims 23 and 30 through 32.

As to claims 21 and 22, we share appellant's view as set forth on page 9 of the brief and pages 6 and 7 of the reply brief, that the examiner has not made out a prima facie case for obviousness since he has merely made a general assertion that the identified difference "is considered to be within one skilled in the art to modify claim 1 of Patent No. 5,430,964" (answer, page 3), without any evidence to support such a conclusion. Appellant

Appeal No. 2001-0252  
Application 08/760,652

has argued (reply brief, pages 6-7) that the modification urged by the examiner is not obvious and also provided reasons in support of that position. In the face of those arguments we have nothing from the examiner but speculation to support his conclusion. Thus, we will not sustain the examiner's rejection of claims 21 and 22 under the judicially created doctrine of obviousness-type double patenting.

We turn next to the examiner's rejection of claim 30 under 35 U.S.C. § 102(b) as being anticipated by Geluk. In this instance, appellant has presented arguments on pages 10 and 11 of the brief and on pages 8 and 9 of the reply brief which we find persuasive. Like appellant, we consider the examiner's position equating "the center spot on the screen" in Geluk (answer, page 4) to appellant's "guide" set forth in claim 30 to be untenable. Unlike appellant's guide seen in Figures 4A, 4B of the present application, the imaginary center spot identified by the examiner on the screen (2) of Geluk is not capable of "guiding the transparency into a predetermined mounting position" as at (42) of Figure 4A, or of cooperating with a second transparency having a second predetermined mounting position (44 in Fig. 4A) as is set forth in appellant's claim 30 so that the guide "separates

Appeal No. 2001-0252  
Application 08/760,652

and determines the two predetermined mounting positions." As for the examiner's position (answer, page 8) that appellant "fails to define any structure with regard to the guide," we find this position to be in error, since the limitation as set forth in claim 30 on appeal with regard to the "guide" would invoke an interpretation under 35 U.S.C. § 112, sixth paragraph. Thus, we will not sustain the examiner's rejection of claim 30 under 35 U.S.C. § 102(b) based on Geluk.

As for the examiner's rejection of claims 4 through 6 and 8 under 35 U.S.C. § 102(b) based on Krajian, we share appellant's view that the "faceplate adapted for holding a film transparency having an area thereon" of claim 4 on appeal is not readable on the layer (13) in the device of Krajian as urged by the examiner, since the layer (13) is not capable of "holding" a film transparency thereon. Moreover, we observe that the device of Krajian lacks a "means for rotating said housing [enclosing the light source] so that light is emitted from the first aperture to scan said transparency" (emphasis ours) as set forth in appellant's claim 4. As for the remaining claims subject to this rejection, we agree with appellant's arguments as set forth on pages 7 and 8 of the brief and on pages 2 through 6 of the reply

Appeal No. 2001-0252  
Application 08/760,652

brief. Thus, we will not sustain the examiner's rejection of independent claim 4, or of claims 5, 6 and 8 which depend therefrom, under 35 U.S.C. § 102(b) based on Krajan.

Regarding the examiner's rejection of dependent claims 7, 11 and 12 under 35 U.S.C. § 103 based on Krajan, we observe that these claims include the limitations noted above in claim 4, and for that reason alone define over the device of Krajan. Moreover, we agree with appellant's position that the examiner's reasoning regarding modification of the device in Krajan to meet the limitations of these claims lacks any evidential basis and stems entirely from speculation and conjecture. Accordingly, the examiner's rejection of claims 7, 11 and 12 under 35 U.S.C. § 103 based on Krajan will also not be sustained.

In summary:

The examiner's decision rejecting claims 21 through 23 and 30 through 32 under the judicially created doctrine of obviousness-type double patenting is reversed.

The examiner's decision rejecting claims 4 through 6 and 8 under 35 U.S.C. § 102(b) as being anticipated by Krajan is



Appeal No. 2001-0252  
Application 08/760,652

reversed, as is the examiner's decision rejecting claims 7, 11 and 12 under 35 U.S.C. § 103 based on Krajian.

In addition, the examiner's decision rejecting claim 30 under 35 U.S.C. § 102(b) as being anticipated by Geluk is reversed.

Thus, the decision of the examiner rejecting claims 4 through 8, 11, 12, 21 through 23 and 30 through 32 of this application is reversed.

REVERSED

Charles E. Frankfort  
CHARLES E. FRANKFORT  
Administrative Patent Judge

JOHN P. McQUADE  
Administrative Patent Judge

JEFFREY V. NASE  
Administrative Patent Judge

BOARD OF PATENT  
APPEALS AND  
INTERFERENCES

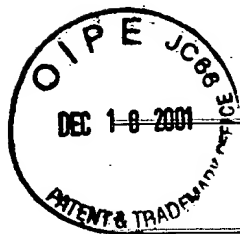
CEF:pgg

Appeal No. 2001-0252  
Application 08/760,652

Greenblum & Bernstein  
Intellectual Property Causes  
1941 Roland Clarke Place  
Reston, VA 20191



**GE Silicones**



## RTV41

### RTV11, RTV21, RTV41 - General Purpose Silicone Rubber Compounds

**Product Description** RTV11, RTV21 and RTV41 silicone rubber compounds are general purpose two-part silicone elastomers. They are supplied ready-to-use with a base compound and DBT (dibutyl tin dilaurate) as the standard curing agent. DBT is suitable for most applications, however other catalysts are available to facilitate deep section cure, faster cure and automated mixing.

These silicone rubber compounds are similar in physical properties except for viscosity and color:

Grade	Color	Typical Viscosity
RTV11	white	11,000 cps
RTV21	pink	26,000 cps
RTV41	white	39,000 cps

- Key Performance Properties**
- Work time and cure rates can be varied
  - Room temperature cure Composition free of solvents and solvent odor
  - FDA compliance - RTV11 and RTV41 silicone rubber compounds can be used in food contact applications other than contact with acidic foods where FDA regulations apply. Refer to GE publication (4319) for additional information.
  - Excellent adhesion capabilities with primer
  - Excellent release properties
  - Retention of elastomeric properties at temperatures from -54°C (-65°F) up to 204°C (400°F) continuously, and up to 260°C (500°F) for short periods of time.

**Applications** Typical applications include, but are not limited to:

- Potting and encapsulating electrical coils and connectors
- Making cast-in-place gaskets and molds
- Release applications such as providing a surface on metals and fabrics from which paint and adhesives can be easily stripped

### Typical Product Data **UNCURED PROPERTIES OF RTV BASE COMPOUNDS**

	RTV11	RTV21	RTV41
Color	White	Pink	White
Consistency	Easily Pourable	Pourable	Pourable
Viscosity, cps	11,000	26,000	39,000

Specific Gravity	1.19	1.32	1.31
------------------	------	------	------

**UNCURED PROPERTIES OF RTV BASE COMPOUNDS WITH 0.5% DBT CURING AGENT ADDED**

	RTV11	RTV21	RTV41
Work Time @ 25°C (77F), hrs	1.5	1	1
Cure Time @ 25°C (77F), hrs	24	24	24

**Typical Product Data**

**CURED PROPERTIES**

(0.5 wt. % DBT Curing Agent added, cured 7 days @ 25C (77F) and 50% R.H.)

	RTV11	RTV21	RTV41
<b>Mechanical</b>			
Hardness, Shore A Durometer	41	45	47
Tensile Strength, kg/cm <sup>2</sup> (psi)	36 (510)	22 (310)	36 (520)
Elongation, %	190	210	190
Tear Strength, kg/cm (lb/in)	3.5 (20)	7.1 (40)	5.2 (29)
Shrinkage, %	0.6	0.6	0.6
<b>Electrical</b>			
Dielectric Strength, kv/mm (v/mil) (1.9 mm thick)	20.3 (515)	16.5 (420)	20.3 (520)
Dielectric Constant @ 1000 Hz	3.3	3.8	3.7
Dissipation Factor @ 1000 Hz	0.006	0.02	0.007
Volume Resistivity, ohm-cm	1.1 x 10 <sup>15</sup>	2.6 x 10 <sup>14</sup>	1.6 x 10 <sup>14</sup>
<b>Thermal</b>			
Useful Temperature Range, °C (°F)	-54 to 204 (-65 to 400)	-54 to 204 (-65 to 400)	-54 to 204 (-65 to 400)
gm-cal/sec, cm <sup>2</sup> , °C/cm (BTU/hr, ft <sup>2</sup> , °F/ft)	0.00070 (0.17)	0.00074 (0.18)	0.00074 (0.18)
Coefficient of Expansion, cm/cm, °C (in/in, °F)	25 x 10 <sup>-5</sup> (14 x 10 <sup>-5</sup> )	20 x 10 <sup>-5</sup> (11 x 10 <sup>-5</sup> )	20 x 10 <sup>-5</sup> (11 x 10 <sup>-5</sup> )
Specific Heat, cal/gm, °C (BTU/lb, °F)	0.35 (0.35)	0.35 (0.35)	0.35 (0.35)

**Specifications** Typical product data values should not be used as specifications. Specification assistance available by contacting GE Silicones at 800/255-8886.

**AGENCY STATUS**

RTV11 and RTV41 silicone rubber compounds may be used in food contact application other than acidic foods where FDA regulations apply.

**Instructions for Use** **Mixing**

Select a mixing container 4 to 5 times larger than the volume of RTV silicone rubber compound to be used. Weigh out the RTV silicone rubber base compound and add the appropriate amount of curing agent. 0.5% DBT by weight will provide a work time or pot life of about one hour and a cure time of 24 hours. 0.5% DBT is the most commonly used concentration of curing agent for RTV11,

RTV21 and RTV41 silicone rubber compounds. The pot life may be lengthened by using less DBT (as little as 0.1%).

#### MEASURING GUIDE FOR CURING AGENT ADDITION

RTV Weight	Dibutyl Tin Dilaurate Concentration	
	0.1%	0.5%
100 grams	5 drops	25 drops
454 grams (1 lb.)	23 drops	115 drops (2.27 grams)

With clean tools, thoroughly mix the RTV base compound and the curing agent, scraping the sides and bottom of the container carefully to produce a homogeneous mixture. When using power mixers, avoid excessive speeds which could entrap large amounts of air or cause overheating of the mixture, resulting in shorter pot life.

#### Deaeration

Air entrapped during mixing should be removed to eliminate voids in the cured product. Expose the mixed material to a vacuum of about 25 mm (29 in.) of mercury. The material will expand, crest, and recede to about the original level as the bubbles break. Degassing is usually complete about two minutes after frothing ceases. When using the RTV silicone rubber compound for potting, a deaeration step may be necessary after pouring to avoid capturing air in complex assemblies.

#### Curing

Using DBT curing agent at a level of 0.5%, these RTV silicone rubber compounds will cure in 24 hours at 25°C (77°F) and 50% relative humidity to form durable, resilient rubbers. Under these conditions a pot life of about one hour will typically be available for pouring and working with the catalyzed material. Pot life may be increased by refrigerating the mixed material at 0°C (32°F) after catalyzing. Cure times may be shortened by using mild heat up to 93°C (200°F) maximum.

A choice of curing agents is available for use with RTV11, RTV21 and RTV41 silicone rubber compounds.

Curing Agent	Cure Speed	Curing Agent Concentration	Features
DBT	moderate	0.1-0.5%	standard
STO	fast	0.1-0.5%	small volume applications
RTV9811	moderate	5-10%	good deep section cure suitable for automatic mixing
RTV9950	moderate	5-10%	suitable for automatic mixing
RTV9910	slow	10%	suitable for automatic mixing

### Deep Section Cure

If these RTV silicone rubber compounds are to be used in deep sections at temperatures over 150°C (302°F), the cured product should be properly conditioned prior to service. Following room temperature cure of 1-3 days, a typical program would be eight hours at 50°C intervals from 100°C (212°F) to the service temperature. Longer times at each temperature will be required for larger parts or very deep sections.

### Bonding

If adhesion is an important application requirement, RTV11, RTV21 and RTV41 silicone rubber compounds require a primer to bond to non-silicone surfaces. Thoroughly clean the substrate with a non-oily solvent such as naphtha or methyl ethyl ketone (MEK) and let dry. Then apply a uniform thin film of a suitable silicone primer such as SS4004. Allow the primer to air dry for one hour or more. Finally, apply freshly catalyzed RTV silicone rubber compound to the primed surface and cure as recommended. For more details on priming and adhesion refer to GE Silicones data sheet on silicone primers (CDS1873).

**Handling and Safety** Material Safety Data Sheets are available upon request from GE Silicones. Similar information for solvents and other chemicals used with GE products should be obtained from your suppliers. When solvents are used, proper safety precautions must be observed.

**Storage and Warranty Period** These products may be shipped at ambient temperature up to 110°F for 7 days maximum. They must be stored at -18°C (0°F) or below. The warranty period is 12 months from the date of shipment from GE Silicones if stored in the original, unopened container at these conditions.

**Availability** RTV11, RTV21 and RTV41 silicone rubber compounds may be ordered from GE Silicones, Waterford, NY, 12188, the GE Silicones sales office nearest you or an authorized GE silicone product distributor.

**Government Requirement** Prior to considering use of a GE Silicones product in fulfilling any Government requirement, please contact the Government and Trade Compliance office at 413-448-4624.

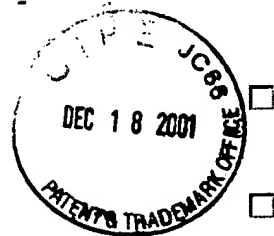
CDS1867

### LEGAL DISCLAIMER

THE MATERIALS, PRODUCTS AND SERVICES OF GE SILICONES, GE BAYER SILICONES, GE TOSHIBA SILICONES, THEIR SUBSIDIARIES OR AFFILIATES (THE "SUPPLIER"), ARE SOLD SUBJECT TO THE SUPPLIER'S STANDARD CONDITIONS OF SALE, WHICH ARE INCLUDED IN APPLICABLE SALES AGREEMENTS, PRINTED ON THE BACK OF ACKNOWLEDGMENTS AND INVOICES, OR AVAILABLE UPON REQUEST. ALTHOUGH THE INFORMATION, RECOMMENDATIONS OR ADVICE CONTAINED HEREIN IS GIVEN IN GOOD FAITH, SUPPLIER MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, (I) THAT THE RESULTS DESCRIBED HEREIN WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (II) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN INCORPORATING SUPPLIER'S MATERIALS, PRODUCTS, SERVICES, RECOMMENDATIONS OR ADVICE. NOTHING IN THIS OR ANY OTHER DOCUMENT SHALL ALTER, VARY, SUPERSEDE OR OPERATE AS A WAIVER OF ANY OF THE SUPPLIER'S STANDARD CONDITIONS OF SALE.

Each user bears the full responsibility for making its own determination as to the suitability of Supplier's materials, products, services, recommendations or advice for its own particular purpose. Each user must identify and perform tests and analyses sufficient to assure it that its finished parts will be safe and suitable for use under end-use conditions. Because actual use of products by the user is beyond the control of Supplier, such use is within the exclusive responsibility of the user, and Supplier cannot be held responsible for any loss incurred through incorrect or faulty use of the products. Further, no statement contained herein concerning a possible or suggested use of any material, product, service or design is intended or should be construed to grant any license under any patent or other intellectual property right of Supplier or any of its subsidiaries or affiliated companies, or as a recommendation for the use of such

material, product, service or design in the infringement of any patent or other intellectual property right.



RECEIVED  
DEC 21 2001  
TC 1700

- |                          |        |   |
|--------------------------|--------|---|
| <input type="checkbox"/> | RTV102 | White, one part, acetoxycure silicone adhesive sealant used in vertical and overhead sealing and bond as a general purpose sealing and bonding agent, space-filling rubber adhesive, or formed-in-place gasket. Meets Mil specs, FDA compliance, NSF status, UL and USDA recognition.                             |
| <input type="checkbox"/> | RTV103 | Black, one part, acetoxycure silicone adhesive sealants used in vertical and overhead sealing and bond as a general purpose sealing and bonding agent, space-filling rubber adhesive, or formed-in-place gasket. Meets Mil specs, FDA compliance, NSF status, UL and USDA recognition.                            |
| <input type="checkbox"/> | RTV106 | Red, one part, acetoxycure, high heat resistant silicone paste used in sealing heating elements, FIPG and insulating electrical parts, bonding and sealing parts. Premium end product performance up to 260C. Meets Mil specs, FDA compliance, NSF status, UL and USDA recognition.                               |
| <input type="checkbox"/> | RTV108 | Translucent, one part, acetoxycure, silicone adhesive sealants used in vertical and overhead sealing and bond as a general purpose sealing and bonding agent, space-filling rubber adhesive, or formed-in-place gasket. Meets Mil specs, FDA compliance, NSF status, UL and USDA recognition.                     |
| <input type="checkbox"/> | RTV109 | Aluminum, one part, acetoxycure, silicone adhesive sealants used in vertical and overhead sealing and bond as a general purpose sealing and bonding agent, space-filling rubber adhesive, or formed-in-place gasket. Meets Mil specs, FDA compliance, NSF status, UL and USDA recognition.                        |
| <input type="checkbox"/> | RTV111 | White, two part, general purpose, condensation cure, pourable, silicone rubber compound for use in potting connectors, switches, components and coils from dust, moisture and shock, and casting rubber release status.   |
| <input type="checkbox"/> | RTV112 | White, one part, general purpose, self leveling, pourable acetoxycure silicone sealant where flow into small crevices is desired. Used in thin-section potting, coating, sealing, bonding, insulating and encapsulating applications. Meets Mil specs, FDA compliance, NSF status, UL and USDA recognition.       |
| <input type="checkbox"/> | RTV116 | Red, one part, high temperature, self leveling, pourable acetoxycure silicone sealant used in thin-section potting and encapsulating and sealing heat elements, and filling small voids. Protective coating will flow into small crevices. Meets Mil specs, FDA compliance, NSF status, UL and USDA recognition.  |
| <input type="checkbox"/> | RTV118 | Translucent, one part, general purpose, self leveling pourable, acetoxycure silicone sealant where flow into small crevices is desired. Used in thin-section potting, coating, sealing, bonding, insulating and encapsulating applications. Meets Mil specs, FDA compliance, NSF status, UL and USDA recognition. |
| <input type="checkbox"/> | RTV12  | Clear, two part, low viscosity, repairable, easy flow, condensation cure, silicone potting system for use where flow is important. Protects high and low voltage electronic assemblies and connectors with primerless adhesives on substrates including ceramics.   |
| <input type="checkbox"/> | RTV12A | Clear, base for two part RTV12.   |
| <input type="checkbox"/> | RTV12C | Clear, catalyst for two part RTV12.   |
| <input type="checkbox"/> | RTV133 | Black, one part, non-corrosive, non-halogenated, flame retardant neutral cure RTV silicone paste. Used in firewalls, in switching devices, motors, and high-voltage transformers and formed in place gaskets. Exhibits low odor and excellent electrical insulation properties. UL Recognition.                   |
| <input type="checkbox"/> | RTV142 | White, one part, neutral cure, non-corrosive, low volatile, low odor, silicone adhesive sealant paste. Use as electronic adhesive and in gasketing and sealing applications where a high level of volatile condensable byproducts cannot be tolerated.  |
| <input type="checkbox"/> | RTV157 | Grey, one part, acetoxycure, high strength silicone adhesive sealant. Can be applied to vertical, horizontal and overhead surfaces in applications requiring high strength performance.   |
| <input type="checkbox"/> | RTV159 | Red, one part, acetoxycure, high strength, high temperature silicone adhesive sealant. Can be applied to vertical, horizontal, overhead surfaces in applications requiring high strength and high temperature performance for continuous use. FDA approved.   |
| <input type="checkbox"/> | RTV160 | White, one part, self-leveling, low odor, non-corrosive neutral cure, electronic grade silicone adhesive sealant. Meets Mil spec requirements and UL recognition.   |
| <input type="checkbox"/> | RTV162 | White, one part, high strength, low odor, non-corrosive neutral cure, electronic grade silicone adhesive sealant. Meets Mil spec requirements and UL recognition.   |
| <input type="checkbox"/> |        | Grey, low odor, non-corrosive, neutral cure, electronic grade silicone adhesive sealant. Meets Mil spec requirements and UL recognition.  |



<input type="checkbox"/>	<b>RTV167</b>	requirements and UL recognition.
<input type="checkbox"/>	<b>RTV1673LV</b>	Black, one part, neutral cure, low volatile silicone adhesive sealant for automotive headlamp sealing. He to withstand pressurization testing. Thixotropic paste bonds to many substrates without primers and is n corrosive to most metals.
<input type="checkbox"/>	<b>RTV20.01</b>	Translucent, one part, free-flowing, self-leveling acetoxycure silicone sealant for quicker cure stocking ( applications. Contains no solvents and can be dipped, brushed, or sprayed.
<input type="checkbox"/>	<b>RTV21</b>	Pink, two part, general purpose, condensation cure, pourable, silicone rubber compound for electrical pot thermal insulation and gasketing appliances. Elastomeric properties range from -54C up to 204C continu up to 260C for short periods of time.
<input type="checkbox"/>	<b>RTV31</b>	Red, two part, pourable condensation cure, silicone rubber compound for electrical potting and mechani applications for high temperature resistance and low viscosity with variable work times and cure rates. E properties range from -54C to 260C continuously, to 316C for short periods.
<input type="checkbox"/>	<b>RTV400T</b>	Clear, two part, condensation cure silicone rubber for the animatronic or character skins in the moldmak industry. Ability to paint and tint. Considered a non-irritant to uncompromised skin tissue based on TSC/ Primary Dermal Irritation; rating 0.0
<input type="checkbox"/>	<b>RTV41</b>	White, two part, general purpose, condensation cure, pourable, silicone rubber compound for release cc various substrates, metal panels, fabrics, and casting rubber release rolls. Elastomeric properties range up to 204C continuously, and up to 260C (500F) for short periods of time.
<input type="checkbox"/>	<b>RTV421</b>	Beige, two part, high strength, condensation cure silicone moldmaking product. Suggested for use on st bearing clay masters due to its inhibition resistance. Often used for molding picture frames. Good inhibit resistance to sulfur materials. Exhibits low viscosity for easy pouring.
<input type="checkbox"/>	<b>RTV426</b>	Beige, two part, condensation cure silicone moldmaking product developed primarily for segments using casting resins such as picture frame and figurine molding. Excellent resistance to urethane casting resin high tear strength and low viscosity for easy pour.
<input type="checkbox"/>	<b>RTV430</b>	White, two part, condensation cure, high strength, silicone rubber for mold making applications, as soft pads for ink transfer and skin or bladder molds for candle or plastic reproductions. Base compound may catalyzed with any one of our Beta series curing agents.
<input type="checkbox"/>	<b>RTV511</b>	White, two part, condensation cure, low temperature, pourable, silicone rubber compound for potting, ar electrical assemblies. Exhibits thermal insulation for ablative applications, low and high temperature bon in-place shielding and variable work times and cure rates.
<input type="checkbox"/>	<b>RTV5222</b>	White, one part, non-corrosive, neutral cure, silicone sealant. Low modulus for joint movement capability gap seal with primerless adhesion to steel, glass, polycarbonate, acrylic, and PVC. Exhibits low odor an tooling time. UL recognition.
<input type="checkbox"/>	<b>RTV5223</b>	Black, one part, non-corrosive, neutral cure silicone sealant. Low modulus for joint movement capability gap seal with primerless adhesion to steel, glass, polycarbonate, acrylic, and PVC. Exhibits low odor an tooling time. UL recognition.
<input type="checkbox"/>	<b>RTV5229</b>	Grey, one part, non-corrosive, neutral cure, silicone sealant. Low modulus for joint movement capability gap seal with primerless adhesion to steel, glass, polycarbonate, acrylic, and PVC. Exhibits low odor an tooling time. UL recognition.
<input type="checkbox"/>	<b>RTV5242</b>	White, one part, high strength/tear resistant, hydrolytically stable, low odor, non-corrosive, neutral cure, sealant with primerless adhesion to steel, aluminum, glass, and polycarbonate. Exhibits fast room temp cure. UL recognition.
<input type="checkbox"/>	<b>RTV5243</b>	Black, one part, high strength/tear resistant, hydrolytically stable, low odor, non-corrosive, neutral cure, sealant with primerless adhesion to steel, aluminum, glass, and polycarbonate. Exhibits fast room temp cure. UL recognition.
<input type="checkbox"/>	<b>RTV5249</b>	Grey, one part, high strength/tear resistant, hydrolytically stable, low odor, non-corrosive, neutral cure si sealant with primerless adhesion to steel, aluminum, glass, and polycarbonate. Exhibits fast room temp cure. UL recognition.
<input type="checkbox"/>	<b>RTV54</b>	Medium grey, one part, silicone material suitable for use in roofing applications as the weatherseal coat silicone coated urethane foam roofing systems. Requires no mixing and can be applied by spray, roller, and trowel.